(12) **United States Patent**
Jennings

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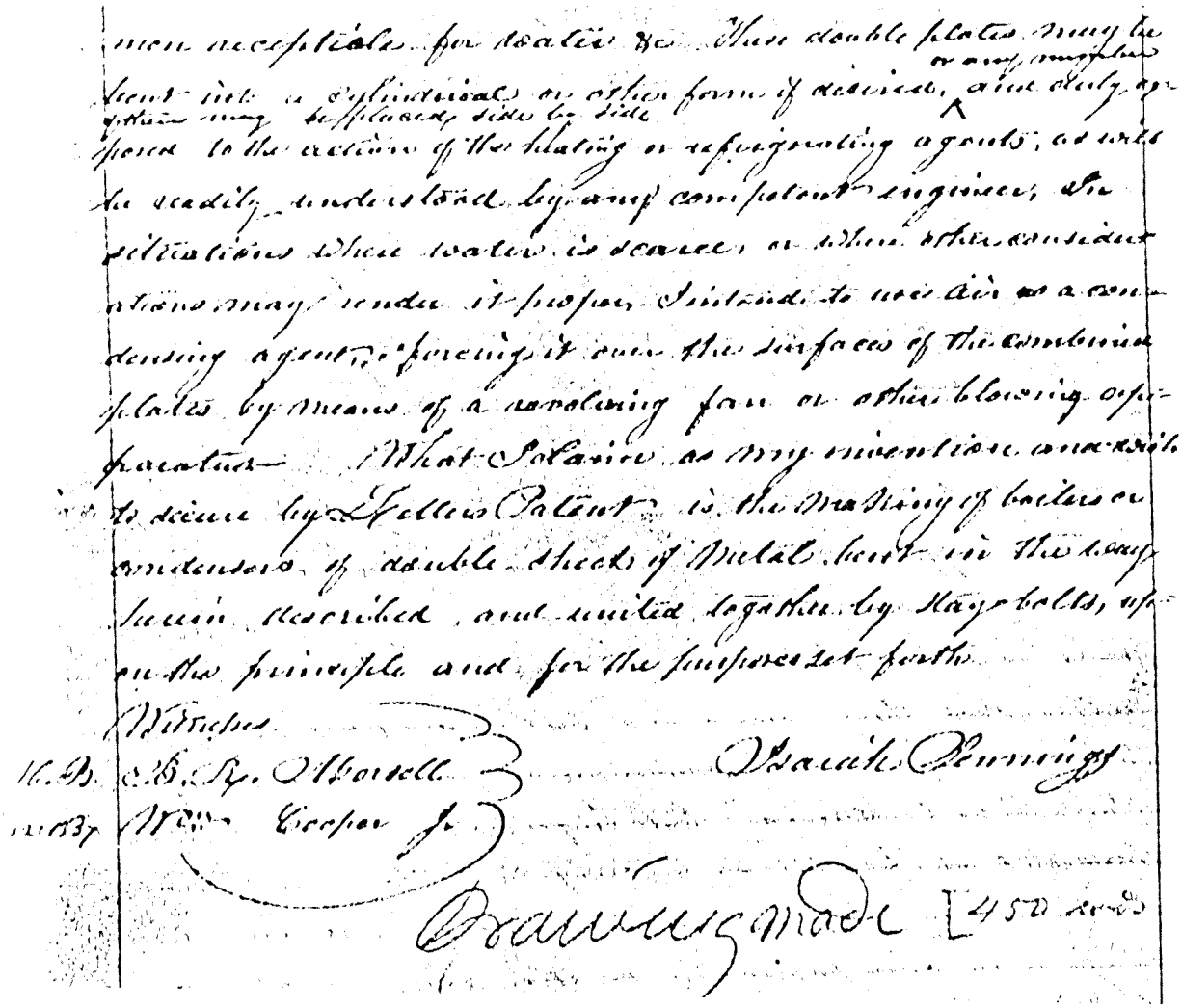
(54) **STEAM, GENERATING**

(76) Inventor: **Isaiah Jennings**

Isaiah Jennings

No. 9.9.8

The schedule referred to in these Letters Patent and making part of the same containing a description of the said Isaiah Jennings himself of the improvement in the apparatus for the generating and condensing of steam for steam engines and of boilers in the process of distillation. To all whom it may concern be it known that I Isaiah Jennings of the City of New York in the State of New York have invented an improved apparatus to be used as a boiler or condenser for generating or condensing steam in steam engines and various other of various kinds in distillation, and I do hereby declare that the following is a full and exact description thereof. The boilers or condensers may be made in any form which may be desired, but in general I prefer to make them flat or plain, excepting that they must have protuberances and indentations on their surfaces resulting from their particular construction. Which is as follows, Metal plates are taken and there are to be so wrought by hammering, stamping or otherwise, that their whole surfaces on each side shall present alternate convex ridges and concavities regularly distributed, and so that when two such plates are laid upon each other, their convex parts shall come into contact with each other, for a boiler of ordinary size the touching points may be about four inches apart, but this distance will vary according to the strength of the metal and the pressure to which it is to be subjected, at each of these touching points the metal is to be perforated to receive stay bolts by which the plates are to be secured together, as well as at their edges. The cavities between the plates will then communicate freely with each other and will form a common



men necessitate for boiler &c. When double plates may be
or any complicated
form into a cylindrical or other form of vessel, and duly ap-
plied may be efficiently used by side
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seam to the exterior of the boiling or refrigerating agents; as will
be readily understood by any competent engineer, the
circumstances when water is desired or when other consider-
ations may render it proper. Instead of using as a con-
densing agent & forcing it over the surfaces of the combined
plates by means of a revolving fan or other blowing appa-
ratus— What I claim as my invention and desire
to secure by Letters Patent is the Making of boilers or
condensers of double sheets of Metal, joint in the manner
herein described and united together by Mayor bolts, up-
on the principle and for the purposes set forth.
Witnesses
W. B. C. B. Ryl. Worrell David Bennigs
W. W. Cooper Jr.
Drawings made [illegible]